

Notice of Allowability

Application No.

10/686,789

Examiner

Satyendra K. Singh

Applicant(s)

LEBLOND ET AL.

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.


1. ☒ This communication is responsive to 02/10/06.
2. ☒ The allowed claim(s) is/are 1,3-17 and 19-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 04/11/2006
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



SANDRA E. SAUCIER
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Carlos R. Villamar (attorney on record) on April 11, 2006.

The application has been amended as follows:

In the Claims

Claims 2 and 18 have been cancelled by this examiner's amendment.

Claims 1, 4, 7, 17, 20 and 32 are amended as follows:

1. A method for microencapsulating a beaded material, said method comprising the steps of:
 - a) providing a material enclosed within a bead to obtain a beaded material;
 - b) covering the beaded material with a semi-permeable layer made of a polycation cross-linking derivative to obtain a product, wherein said polycation cross-linking derivative is obtained by covalently linking said polycation with a photoactivable cross-linking agent;
 - c) covering the product of step b) with a biocompatible layer, and
 - d) activating said cross-linking agent to covalently link said semi-permeable layer of the product of step b) to said beaded material and said biocompatible layer.

4. The method of claim 1, wherein step d) comprises exposing the polycation cross-linking derivative of the semi-permeable layer to a predetermined dose of light.
7. The method of claim 1, wherein the bead and the biocompatible layer comprise a negatively-charged compound.
17. A semi-permeable microcapsule comprising: a bead suited to enclose a material; a semi-permeable layer covering the bead, said semi-permeable layer being made of a polycation cross-linking derivative covalently linked to the bead; and a biocompatible layer covering said semi-permeable layer, said biocompatible layer being covalently linked to the polycation cross-linking derivative of said semi-permeable layer, wherein said polycation cross-linking derivative is obtained from covalent linking of said polycation with a photoactivable cross linking agent.
20. The microcapsule of claim 17, wherein the bead and the biocompatible layer comprise a negatively-charged compound.
32. A pharmaceutical composition comprising a plurality of semi-permeable microcapsules as defined in claim 17, each of said microcapsules enclosing a material, and a pharmaceutically acceptable carrier.

Reasons for allowance

The following is an examiner's statement of reasons for allowance: Applicant's arguments filed with the office on February 10th 2006 in response to the rejections set forth in the previous office action have been found to be persuasive. In view of the arguments (see applicant's remarks, page 7, in particular) and the examiner's amendments put forth in the broader claims 1 and 17, the invention (i.e. a method for

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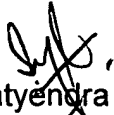
microencapsulating a beaded material, and a semi-permeable microcapsule as specifically recited in claims 1 and 17, respectively) as claimed is now deemed to be free of prior art relied upon by the examiner (Chang et al, Hubbell et al, and Pierce Biotechnology, Inc.). All other claims depend directly or indirectly from the broader claims 1 and 17, and are also deemed to be free of the prior art.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satyendra K. Singh whose telephone number is 571-272-8790. The examiner can normally be reached on 9-5MF (alternate Fridays OFF).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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